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U.S. PATENT AND TRADEMARK OFFICE
6010

SEQUENCE LISTING

<110> NAGY et al.

<120> HUMAN POLYPEPTIDES CAUSING OR LEADING TO THE KILLING OF CELLS INCLUDING LYMPHOID TUMOR CELLS

<130> GPCG-P01-003

<140> 10/001934

<141> 2001-11-15

<150> PCT/US01/15625

<151> 2001-05-14

<150> EP 00 11 0065.0

<151> 2000-05-12

<150> US 60/238,762

<151> 2000-10-06

<160> 62

<170> PatentIn version 3.2

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<212> PRT

<213> artificial sequence

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<221> VHconCDR3

<222> (1)..(10)

<223> "Xaa" represents any amino acid residue

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<221> VLconCDR3

<222> (1)..(8)

<223> "Xaa" represents any amino acid residue

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CDR3, MS-GPC8-6-2-VH-CDR3, MS-GPC8-6-13-VH-CDR3, MS-GPC8-6-19-VH-CDR3, MS-GPC8-
6-27-VH-CDR3, MS-GPC8-6-45-VH-CDR3, MS-GPC8-10-57-VH-CDR3, MS-GPC8-27-7-VH-CDR3,
MS-GPC8-27-10-VH-CDR3, MS-GPC8-27-41-VH-CDR3, MS-GPC8-6-47-VH-CDR3
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<223> "Xaa" represents any amino acid residue

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<223> "Xaa" represents any amino acid residue

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<223> "Xaa" represents any amino acid residue

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<221> MS-GPC8-27-7-VL-CDR1

<222> (1)..(13)

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<222> (1)..(10)

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<222> (1)..(8)

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<221> MS-GPC8-18-VL-CDR3

<222> (1)..(8)

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Gln Ser Tyr Asp Phe Ser Ile Tyr

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35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
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Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Phe Ser His
85 90 95

Tyr Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

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<222> (1)..(13)

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Ser Gly Ser Glu Ser Asn Ile Gly Ala Asn Tyr Val Thr
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<212> PRT

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<221> MS-GPC8-6-47-VL-CDR1

<222> (1)..(13)

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<210> 31

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<212> PRT

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<221> MS-GPC8-9-VL

<222> (1)..(109)

<400> 31

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Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu			
35	40	45	
Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser			
50	55	60	
Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln			
65	70	75	80
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His Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly			
100	105		

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 <221> MS-GPC8-18-VL
 <222> (1)..(109)

<400> 32

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Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu			
35	40	45	
Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser			
50	55	60	
Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln			
65	70	75	80
Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Phe Ser Ile			
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Tyr Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly			
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Trp Leu Ala Leu Ile Asp Trp Asp Asp Asp Lys Tyr Tyr Ser Thr Ser
50 55 60

Leu Lys Thr Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
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Cys Ala Arg Gln Tyr Gly His Arg Gly Gly Phe Asp His Trp Gly Gln
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Gly Thr Leu Val Thr Val Ser Ser
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<220>
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Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
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Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Phe Asn Glu
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Ser Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
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<220>
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<222> (1)..(118)

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
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Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
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Ala Arg Gly Tyr Gly Arg Tyr Ser Pro Asp Leu Trp Gly Gln Gly Thr
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Leu Val Thr Val Ser Ser
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35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu
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Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ser Asn Leu Pro
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Phe Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr
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<210> 41

<211> 120

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<213> artificial sequence

<220>

<221> MS-GPC8-VH, MS-GPC8-1-VH, MS-GPC8-6-VH, MS-GPC8-9-VH, MS-GPC8-10-VH, MS-GPC8-17-VH, MS-GPC8-18-VH, MS-GPC8-27-VH, MS-GPC8-6-2-VH, MS-GPC8-6-13-VH, MS-GPC8-6-27-VH, MS-GPC8-6-45-VH, MS-GPC8-6-47-VH, MS-GPC8-10-57-VH, MS-GPC8-27-7-VH, MS-GPC8-27-10-VH, MS-GPC8-27-41-VH

<222> (1)..(120)

<400> 41

Gln Val Gln Leu Lys Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
35 40 45

Trp Leu Ala Leu Ile Asp Trp Asp Asp Asp Lys Tyr Tyr Ser Thr Ser
50 55 60

Leu Lys Thr Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Ser Pro Arg Tyr Arg Gly Ala Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 42

<211> 109

<212> PRT

<213> artificial sequence

<220>
<221> MS-GPC8-VL
<222> (1)..(109)

<400> 42

Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Met Pro Gln
85 90 95

Ala Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 43
<211> 120
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC10-VH
<222> (1)..(120)

<400> 43

Gln Val Gln Leu Lys Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
35 40 45

Trp Leu Ala Leu Ile Asp Trp Asp Asp Asp Lys Tyr Tyr Ser Thr Ser
50 55 60

Leu Lys Thr Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
85 90 95

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 44
<211> 109
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC10-VL
<222> (1)..(109)

<400> 44

Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Leu Thr Met
85 90 95

Gly Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 45
<211> 109
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC8-6-2-VL
<222> (1)..(109)

<400> 45

Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Glu Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Tyr Asp His
85 90 95

Tyr Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 46

<211> 109

<212> PRT

<213> artificial sequence

<220>

<221> MS-GPC8-6-VL

<222> (1)..(109)

<400> 46

Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Tyr Asp His
85 90 95

Tyr Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 47

<211> 109

<212> PRT

<213> artificial sequence

<220>

<221> MS-GPC8-6-19-VL

<222> (1)..(109)

<400> 47
 Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
 1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Glu Ser Asn Ile Gly Ser Asn
 20 25 30

Tyr Val Ala Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
 35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
 65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Tyr Asp His
 85 90 95

Tyr Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105

<210> 48
 <211> 109
 <212> PRT
 <213> artificial sequence

<220>
 <221> MS-GPC8-10-VL
 <222> (1)..(109)

<400> 48
 Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
 1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
 20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
 35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
 65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Leu Ile Arg
 85 90 95

His Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105

<210> 49

<211> 109
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC8-6-27-VL
<222> (1)..(109)

<400> 49
Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Asp Ser Asn Ile Gly Ala Asn
20 25 30

Tyr Val Thr Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Tyr Asp His
85 90 95

Tyr Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 50
<211> 109
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC8-17-VI
<222> (1)..(109)

<400> 50

Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Phe Ser Val
85 90 95
Tyr Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 51
<211> 109
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC8-6-45-VL
<222> (1)..(109)

<400> 51
Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Glu Pro Asn Ile Gly Ser Asn
20 25 30

Tyr Val Phe Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Tyr Asp His
85 90 95

Tyr Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 52
<211> 109
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC8-27-VI
<222> (1)..(109)

<400> 52
Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75

Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Met Asn
80 85 90 95

Val His Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 109

<210> 53
<211> 109
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC8-6-47-VL
<222> (1)..(109)

<400> 53
Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Glu Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Tyr Asp His
85 90 95

Tyr Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 54
<211> 109
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC8-6-13-VL
<222> (1)..(109)

<400> 54
Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln

1	5	10	15
Arg Val Thr Ile Ser Cys Ser Gly Ser Glu Ser Asn Ile Gly Ala Asn			
20	25	30	
Tyr Val Thr Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu			
35	40	45	
Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser			
50	55	60	
Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln			
65	70	75	80
Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Tyr Asp His			
85	90	95	
Tyr Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly			
100	105		
<210> 55			
<211> 109			
<212> PRT			
<213> artificial sequence			
<220>			
<221> MS-GPC8-27-7-VL			
<222> (1)..(108)			
<400> 55			
Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln			
1	5	10	15
Arg Val Thr Ile Ser Cys Ser Gly Ser Glu Ser Asn Ile Gly Asn Asn			
20	25	30	
Tyr Val Gly Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu			
35	40	45	
Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser			
50	55	60	
Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln			
65	70	75	80
Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Met Asn Val			
85	90	95	
His Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly			
100	105		
<210> 56			
<211> 109			
<212> PRT			
<213> artificial sequence			

<220>
<221> MS-GPC8-10-57-VL
<222> (1)..(109)

<400> 56
Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Glu Ser Asn Ile Gly Asn Asn
20 25 30

Tyr Val Gln Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Leu Ile Arg
85 90 95

His Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 57
<211> 109
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC8-27-10-VL
<222> (1)..(108)

<400> 57
Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Glu Ser Asn Ile Gly Ala Asn
20 25 30

Tyr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Met Asn Val
85 90 95

His Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly

100

105

<210> 58
<211> 109
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC8-27-41-VL
<222> (1)..(108)

<400> 58
Asp Ile Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Glu Ser Asn Ile Gly Asn Asn
20 25 30

Tyr Val Gln Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Met Asn Val
85 90 95

His Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 59
<211> 8
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC1-VL-CDR3
<222> (1)..(8)

<400> 59

Gln Ser Tyr Asp Phe Asn Glu Ser
1 5

<210> 60
<211> 8
<212> PRT
<213> artificial sequence

<220>

<221> MS-GPC8-6-VL-CDR3,MS-GPC8-6-2-VL-CDR3,MS-GPC8-6-13-VL-CDR3, MS-GPC8-6-19-VL-CDR3,MS-GPC8-6-27-VL-CDR3,MS-GPC8-6-45-VL-CDR3,MS-GPC8-6-47-VL-CDR3
<222> (1)..(8)

<400> 60

Gln Ser Tyr Asp Tyr Asp His Tyr
1 5

<210> 61
<211> 10
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC10-VH-CDR3
<222> (1)..(10)

<400> 61

Gln Leu His Tyr Arg Gly Gly Phe Asp Leu
1 5 10

<210> 62
<211> 12
<212> PRT
<213> artificial sequence

<220>
<221> MS-GPC6-VL-CDR1
<222> (1)..(12)

<400> 62

Arg Ala Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala
1 5 10